Application No. 10/034,686 Amendment Dated February 23, 2005

Reply to Office Action of August 25, 2004

Attorney Docket No.: 38943.1.1.1

Amendments to the Claims

1. (previously presented): A hand operated syringe for injecting a liquid, comprising:

a) an elongated barrel having proximal and distal ends and an exit orifice at its distal

end;

b) a pair of opposing finger grips for reception of the index and middle fingers,

respectively, of a user's hand and carried at the proximal end of the barrel, each grip having a

generally distally facing gripping surface having an arcuate portion nearer the barrel than any

other arcuate gripping surface portion and defining a most proximal point on said arcuate

gripping surface to which finger pressure is applied proximally during operation of the syringe,

said points defining a plane substantially perpendicular to the barrel's axis;

c) a plunger received in the barrel and having a proximal end protruding from the

barrel, said proximal end including a pressure surface adapted to receive manual pressure; the

plunger being movable between retracted and fully inserted positions within the barrel to

discharge a volume of liquid through the exit orifice, the pressure surface of the plunger and the

finger pressure points closely adjacent the barrel being so arranged that when the plunger is in its

fully inserted position, its pressure surface is spaced distally of said plane.

2. (original): The syringe of claim 1 wherein the volume is from about 3 cm<sup>3</sup> to about 20 cm<sup>3</sup>.

3. (original): The syringe of claim 1 wherein the volume is from about 5 cm<sup>3</sup> to about 10 cm<sup>3</sup>.

2 .

Application No. 10/034,686 Amendment Dated February 23, 2005

Reply to Office Action of August 25, 2004

Attorney Docket No.: 38943.1.1.1

4. (currently amended): A hand operated syringe for injecting a liquid, comprising:

a) an elongated barrel having proximal and distal ends and an exit orifice at its distal

end, the elongated barrel having a substantially constant diameter;

b)

a pair of opposing finger grips for reception of the index and middle fingers,

respectively, of a user's hand and spaced apart at least the diameter of the barrel and carried at

the proximal end of the barrel, each grip having a generally distally facing gripping surface

having an arcuate portion nearer the barrel than any other arcuate gripping surface portion and

defining a finger pressure point to which finger pressure is applied proximally during operation

of the syringe, said points defining a plane substantially perpendicular to the barrel's axis;

c) a plunger received in the barrel and having a proximal end protruding from the

barrel, said proximal end including a pressure surface adapted to receive manual pressure; the

plunger being movable between retracted and fully inserted positions within the barrel to

discharge a volume of liquid through the exit orifice, the pressure surface of the plunger and the

finger pressure points closely adjacent the barrel being so arranged that when the plunger is in its

fully inserted position, its pressure surface lies substantially in is spaced distally of said plane.

3

Application No. 10/034,686 Amendment Dated February 23, 2005 Reply to Office Action of August 25, 2004 Attorney Docket No.: 38943.1.1.1

- canaled 5. (withdrawn): A hand operated syringe for injecting a liquid, comprising:
- a) an elongated barrel having proximal and distal ends and an exit orifice at its distal end, the barrel defining a fluid reservoir having a cross-sectional area A'
- b) a pair of opposing finger grips carried at the proximal end of the barrel, each having a proximal inner portion defining a pressure point to which finger pressure is applied proximally during operation of the syringe, said points laying in a plane substantially perpendicular to the barrel's axis;
- c) a plunger received in the barrel and having a proximal end protruding from the barrel, said proximal end including a pressure surface adapted to receive manual pressure; the plunger being movable through a stroke length S between retracted and fully inserted positions within the barrel to discharge a volume V of fluid through the its exit orifice, wherein, when the plunger is in its fully inserted position, its pressure surface is spaced distally of said plane by a distance L, where L is greater than or equal to 0.01S.
- (currently amended): The syringe of claim [[4]] 1 wherein said discharge volume is from about 3 cm<sup>3</sup> to about 20 cm<sup>3</sup>.
- (currently amended): The syringe of claim [[4]] 1 wherein said discharge volume is from about 5 cm<sup>3</sup> to about 10 cm<sup>3</sup>.
- (currently amended): The syringe of claim [[4]] 1 wherein said barrel defines a fluid reservoir having a cross-sectional area A wherein area A is less than 0.3 square inches.

Application No. 10/034,686 Amendment Dated February 23, 2005 Reply to Office Action of August 25, 2004 Attorney Docket No.: 38943.1.1.1

18

pp. (previously presented): The syringe of claim & wherein area A is about 0.2 square inches.

20 10. (currently amended): They syringe of claim [[4]] 1 wherein said plunger is movable through a stroke length S between retracted and fully inserted positions within the barrel, and wherein, when the plunger is in its fully inserted position, its pressure surface is spaced distally of said plane by a distance L that is greater than or equal to about 0.02S.

21 1. (previously presented): The syringe of claim 10 wherein distance L is about 0.06S.

- 12. (previously presented): A hand operated syringe for injecting a liquid, comprising:
- a) an elongated barrel having proximal and distal ends and an exit orifice at its distal end;
- b) a pair of opposing finger grips for reception of fingers of a user's hand and carried at the proximal end of the barrel, each finger grip having a generally distally facing gripping surface having a pressure point at its center to which finger pressure is applied proximally during operation of the syringe, said pressure points defining a plane substantially perpendicular to the barrel's axis;
- c) a plunger received in the barrel and having a proximal end protruding from the barrel, said proximal end including a pressure surface adapted to receive manual pressure; the plunger being movable between retracted and fully inserted positions within the barrel to discharge a volume of liquid through the exit orifice, the pressure surface of the plunger and the

Application No. 10/034,686

Amendment Dated February 23, 2005 Reply to Office Action of August 25, 2004

Attorney Docket No.: 38943.1.1.1

finger pressure points closely adjacent the barrel being so arranged that when the plunger is in its

fully inserted position, its pressure surface is spaced distally of said plane.

13. (currently amended): The syringe of claim [[16]] 12 wherein each of said gripping surfaces

is arcuate, and wherein said pressure point is at the most proximal point of said arcuate gripping

surface.

14. (currently amended): The syringe of claim [[16]] 12 or claim [[17]] 13 wherein said finger

grips each are configured as circular openings sized to receive only a single finger.

15. (currently amended): A hand operated syringe for injecting a liquid, comprising:

a) an elongated barrel having proximal and distal ends and an exit orifice at its distal

end;

b) a pair of opposing finger grips carried at the proximal end of the barrel and spaced

apart at least the diameter of the barrel, each having a generally distally facing gripping surface

against which finger pressure is applied proximally during operation of the syringe, each

gripping surface having one finger pressure point that is more closely adjacent to the barrel than

any other finger pressure point of said gripping surface, said more closely adjacent pressure

points defining a plane substantially perpendicular to the barrel's axis,

c) a plunger received in the barrel and having a proximal end protruding from the

barrel, said proximal end including a pressure surface adapted to receive manual pressure; the

plunger being movable between retracted and fully inserted positions within the barrel to

6

Application No. 10/034,686 Amendment Dated February 23, 2005 Reply to Office Action of August 25, 2004 Attorney Docket No.: 38943.1.1.1

discharge a volume of liquid through the exit orifice, the pressure surface of the plunger and the finger pressure points closely adjacent the barrel being so arranged that when the plunger is in its fully inserted position, its pressure surface is spaced distally of said plane.